

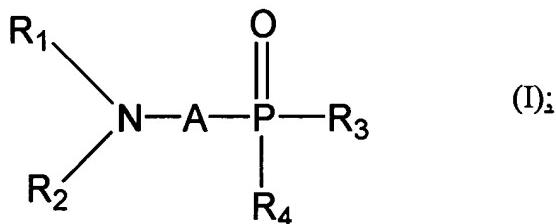
AMENDMENTS TO THE CLAIMS

CORRECTED VERSION

The following is a complete, marked up listing of revised claims with a status identifier in parentheses, underlined text indicating insertions, and strikethrough and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1. (CURRENTLY AMENDED) An organophosphorus compound exhibiting herbicidal, bactericidal or fungicidal properties and having a Use of organophosphorus compounds of the general formula (I)



wherein in which R₁ and R₂ are independently identical or different and are selected from the a group consisting of hydrogen, substituted and unsubstituted alkyl, substituted and unsubstituted hydroxyalkyl, substituted and unsubstituted alkenyl, substituted and unsubstituted alkynyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted aralkyl, substituted and unsubstituted heterocyclic residue, halogen, OX₁ and OX₂;

wherein X₁ and X₂ may be identical or different and are independently selected from the group consisting of hydrogen, substituted and unsubstituted alkyl, substituted and unsubstituted hydroxyalkyl, substituted and unsubstituted alkenyl, substituted and unsubstituted alkynyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and

unsubstituted cycloalkyl, substituted and unsubstituted aralkyl, substituted and unsubstituted heterocyclic residues;.

wherein A is selected from ~~at the~~ group consisting of ~~an~~-alkylene residues, ~~an~~-alkenyl residues and ~~a~~-hydroxyalkylene residues;

wherein R₃ is selected from ~~at the~~ group consisting of hydrogen, substituted and unsubstituted alkyl, substituted and unsubstituted hydroxyalkyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and unsubstituted aralkyl, substituted and unsubstituted alkenyl, substituted and unsubstituted alkynyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted heterocyclic residues and, halogen;

wherein R₄ is selected from ~~at the~~ group consisting of hydrogen, substituted and unsubstituted alkyl, substituted and unsubstituted hydroxyalkyl, substituted and unsubstituted aryl, substituted and unsubstituted acyl, substituted and unsubstituted aralkyl, substituted and unsubstituted alkenyl, substituted and unsubstituted alkynyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted heterocyclic residues, halogen and, OX₄;

wherein X₄ is selected from ~~at the~~ group consisting of hydrogen, substituted and unsubstituted alkyl, substituted and unsubstituted hydroxyalkyl, substituted and unsubstituted aryl, substituted and unsubstituted aralkyl, substituted and unsubstituted alkenyl, substituted and unsubstituted alkynyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted heterocyclic residues, ~~a~~-silyl, ~~a~~-cations of ~~an~~-organic bases, cations of ~~an~~-inorganic bases, in particular of a metal of main group I, II or III of the periodic system, ammonium, substituted ammonium and ammonium compounds which are derived from ethylenediamine or amino acids;

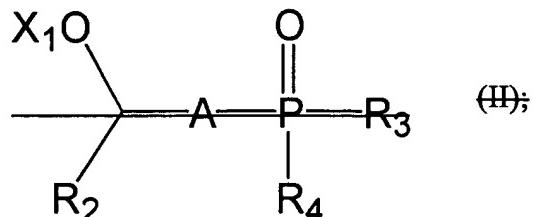
and pharmaceutically acceptable salts, esters, salts of the esters and amides thereof, and salts of the esters, or alternatively compounds which, on administration, provide the compounds to be used according to the invention as metabolites or breakdown products,

for the production of pharmaceutical preparations for the therapeutic and prophylactic treatment of infections in humans and animals caused by parasites, fungi, viruses and bacteria selected from the group consisting of bacteria of the family *Propionibacteriaceae*, in particular of the genus *Propionibacterium*, in particular the species *Propionibacterium acnes*, bacteria of the family *Actinomycetaceae*, in particular of the genus *Actinomyces*, bacteria of the genus

~~Corynnynnebacterium~~, in particular the species ~~Corynebacterium diphtheriae~~ and ~~Corynebacterium pseudotuberculosis~~, bacteria of the family ~~Mycobacteriaceae~~, of the genus ~~Mycobacterium~~, in particular the species ~~Mycobacterium leprae~~, ~~Mycobacterium tuberculosis~~, ~~Mycobacterium bovis~~ and ~~Mycobacterium avium~~, bacteria of the family ~~Chlamydaceae~~, in particular the species ~~Chlamydia trachomatis~~ and ~~Chlamydia psittaci~~, bacteria of the genus ~~Listeria~~, in particular the species ~~Listeria monocytogenes~~, bacteria of the species ~~Erysipelothrix rhusiopathiae~~, bacteria of the genus ~~Clostridium~~, bacteria of the genus ~~Yersinia~~, the species ~~Yersinia pestis~~, ~~Yersinia pseudotuberculosis~~, ~~Yersinia enterocolitica~~ and ~~Yersinia ruckeri~~, bacteria of the family ~~Mycoplasmataceae~~, of the genera ~~Mycoplasma~~ and ~~Ureaplasma~~, in particular the species ~~Mycoplasma pneumoniae~~, bacteria of the genus ~~Brucella~~, bacteria of the genus ~~Bordetella~~, bacteria of the genus ~~Campylobacter~~, in particular the species ~~Campylobacter jejuni~~, ~~Campylobacter coli~~ and ~~Campylobacter fetus~~, bacteria of the genus ~~Helicobacter~~, in particular the species ~~Helicobacter pylori~~, bacteria of the families ~~Spirochaetaceae~~ and ~~Leptospiraceae~~, in particular the genera ~~Treponema~~, ~~Borrelia~~ and ~~Leptospira~~, in particular ~~Borrelia burgdorferi~~, bacteria of the genus ~~Actinobacillus~~, bacteria of the family ~~Legionellaceae~~, of the genus ~~Legionella~~, bacteria of the family ~~Rickettsiaceae~~ and the family ~~Bartonellaceae~~, bacteria of the genera ~~Nocardia~~ and ~~Rhodococcus~~, bacteria of the genus ~~Dermatophilus~~, and as a fungicide, bactericide and herbicide in plants.

2. (CURRENTLY AMENDED) A compound exhibiting herbicidal, bactericidal or fungicidal properties according to claim 1, wherein:

Use according to claim 1, characterised in that the organophosphorus compounds are of the formula (II)



—wherein—

R₁ is OX₁ and further wherein X₁ is selected from the group consisting of hydrogen, substituted or unsubstituted acyl, substituted or unsubstituted alkyl, substituted or unsubstituted aryl, substituted or unsubstituted aralkyl, substituted or unsubstituted cycloalkyl and, substituted or unsubstituted heterocyclic residues; R₂, R₃, R₄ and A have the same meaning as in formula (I).

3. (CURRENTLY AMENDED) Use A compound exhibiting herbicidal, bactericidal or fungicidal properties according to claim 2, wherein: characterised in that

R₂ is an acyl residue; in particular a formyl or acetyl residue;

R₃ is selected from the group consisting of hydrogen, methyl and ethyl;

R₄ is selected from the group consisting of hydrogen, methyl, ethyl and OX₄,

wherein X₄ is selected from the group consisting of hydrogen, sodium, potassium, methyl and ethyl;

X₁ is hydrogen; H

and

A is selected from the group consisting of alkylene, alkenylene and/or hydroxyalkylene.

4. (CURRENTLY AMENDED) A compound exhibiting herbicidal, bactericidal or fungicidal properties according to claim 1, wherein: Use according to one of the preceding claims, characterised in that

A forms a chain of three carbon atoms between the phosphorus atom and the nitrogen atom.

5. (CURRENTLY AMENDED) A compound exhibiting herbicidal, bactericidal or fungicidal properties according to claim 2, wherein: characterised in that

X₄ is selected from the group consisting of hydrogen, ammonium and metals of main groups I and II of the periodic system, ammonium and preferably sodium, potassium, calcium or magnesium, ammonium compounds, which are derived from ethylenediamine or amino acids, preferably ethanolamine, ethylenediamine, N,N-dibenzylethylenediamine and arginine.

6. (CURRENTLY AMENDED) Use A compound exhibiting herbicidal, bactericidal or fungicidal properties according to one of claims 2, 3, and 5 claim 3, wherein:

— characterised in that

~~R₂ is a an acyl residue and A an alkylene residue, wherein R₂ is preferably formed by formyl or acetyl residue; and~~

~~A is a preferably by-propylene, propenylene or and hydroxypropylene residue.~~

7. (CURRENTLY AMENDED) Use A compound exhibiting herbicidal, bactericidal or fungicidal properties according to one of claims 1, 2, 3, and 5 claim 5, wherein:

~~X₄ is a metal selected from a group consisting of sodium, potassium, calcium and magnesium for the production of pharmaceutical preparations for the treatment of infections caused by bacteria, viruses, fungi or uni- or multicellular parasites.~~

8.-14. (CANCELLED)

15. (NEW) A method of treating a desirable plant having or susceptible to bacterial and fungal infection comprising:

applying to the plant a composition containing an effective amount of a compound according to claim 1 whereby infection of the plant is prevented, suppressed or eliminated.

16. (NEW) A method of treating a desirable plant according to claim 15, wherein:

the composition includes one or more excipients selected from a group consisting of fillers, extenders, binders, humectants, solubilizing agents, preservatives, emulsifiers, suspending agents, dissolution retardants, colorants, readsorption accelerators, wetting agents, adsorbents and lubricants.

17. (NEW) A method of treating a desirable plant according to claim 15, wherein:

the composition is applied to the plant as a suspension, powder, emulsion, granules, microcapsules or solution.

18. (NEW) A method of treating a desirable plant according to claim 15, wherein:
the composition is applied directly to one or more plant surfaces.
19. (NEW) A method of treating a desirable plant according to claim 15, wherein:
the composition is applied to media in which the plant is growing and is subsequently absorbed by the plant from the media.
20. (NEW) A method of treating an undesirable plant comprising:
applying to the plant a composition containing an effective amount of a compound according to claim 1, whereby the plant will be weakened or killed.
21. (NEW) A method of treating an undesirable plant according to claim 20, wherein:
the composition includes one or more excipients selected from a group consisting of fillers, extenders, binders, humectants, solubilizing agents, preservatives, emulsifiers, suspending agents, dissolution retardants, colorants, readsorption accelerators, wetting agents, adsorbents and lubricants.
22. (NEW) A method of treating an undesirable plant according to claim 20, wherein:
the composition is applied to the plant as a suspension, powder, emulsion, granules, microcapsules or solution.
23. (NEW) A method of treating an undesirable plant according to claim 20, wherein:
the composition is applied directly to one or more plant surfaces.
24. (NEW) A method of treating an undesirable plant according to claim 20, wherein:
the composition is applied to media in which the plant is growing and is subsequently absorbed by the plant from the media.